Claims

1. Decoy oligonucleotides with the nucleic acid sequence according to SEQ ID NO: 1 to 34.

2. Decoy oligonucleotides according to claim 1 as a pharmaceutical agent.

3. Decoy oligonucleotides according to claim 1 for the manufacture of a pharmaceutical agent for the prevention or therapy of atherosclerosis, coronary heart disease, cardiac infarction, heart failure, cerebral circulatory disorders, stroke and multi-infarction dementia, peripheral arterial occlusion disease, chronic inflammatory and autoimmune diseases, rheumatoid arthritis (chronic polyarthritis), psoriasis including psoriasis arthritis, chronic inflammatory diseases, Crohn's disease, ulcerative colitis, diabetes type I and II, diabetic nephropathy, retinopathy and vasculopathy, multiple sclerosis, sarcoidoses, collagenoses and vasculitis including glomerulonephritis, acute and chronic rejection of transplanted organs, graft versus host disease (GVHD), ischaemia/reperfusion damage of organs following a surgical intervention, vasculopathy of venous bypasses, (pre)eclampsia and pregnancy-induced hypertension, arterial hypertension, left cardiac hypertrophy, formation of aneurysms with the risk of mass haemorrhages and vascular wall transformation, pulmonary hypertension, chronic renal insufficiency, chronic obstructive pulmonary diseases (COPD), bacterial infections, helicobacter-pylori-gastritis, tubercular pericarditis, Lyme borreliosis with subsequent borrelia-arthritis and neuroborreliosis, and post-infection complications after infections with cytomegaly, hepatitis B and C, herpes and HI

(human immunodeficiency) viruses such as portal hypertension, fibrosis and opportunistic infection such as pneumocystis-carnii-pneumonia.

4. Method for the diagnosis of a $^{-786}$C/T-variance in the eNOS-gene, including the following stages:
a) addition of DNA oligonucleotides to a patient-DNA or cDNA sample, wherein a DNA oligonucleotide provides a sequence, which is disposed upstream of the -786 position and corresponds to the sense strand of the eNOS gene, and another DNA oligonucleotide provides a sequence, which is disposed downstream of the -786 position and corresponds to the antisense strand of the eNOS gene,
b) implementation of a polymerase-chain-reaction (PCR),
c) implementation of DNA splitting with a restriction enzyme, which provides a recognition sequence, which is at least 4 nucleotides long and contains the sequence 5'-CCGG-3' but not the sequence 5'-CTGG-3', and
d) demonstration of the DNA fragments obtained from the DNA splitting.

5. Method according to claim 4, wherein after the stage a), the stage
a') addition of fluorescence-dye-modified DNA oligonucleotides, wherein a first DNA oligonucleotide provides a sequence, which includes the -786 position of the eNOS gene and corresponds to the sense or antisense strand and is complementary to the $^{-786}$C-variant of the eNOS gene promoter, and a second DNA oligonucleotide provides a sequence, which corresponds to the sense or antisense strand, wherein the 3'-end of the second DNA oligonucleotide is disposed 1-5 nucleotides upstream of the 5'-end of the first DNA oligonucleotide, if the sequences of the DNA oligonucleotides correspond to the sense strand, and wherein

the 5'-end of the second DNA oligonucleotide is disposed 1-5 nucleotides upstream of the 3'-end of the first DNA oligonucleotide, if the sequences of the DNA oligonucleotides correspond to the antisense strand, is inserted, and, instead of stage c) and d), the stage e) demonstration of the $^{-786}$C-variant or $^{-786}$T-variant by means of fluorescence resonance energy transfer (FRET) supported DNA melting-curve analysis, is implemented.

6. Method according to claim 4 or 5, wherein the DNA oligonucleotides in stage a) provide sequences according to SEQ ID NO: 35 and 36 or 56 and 57.

7. Method according to any one of claims 4 to 6, wherein the fluorescence-dye-modified DNA oligonucleotides in stage a') provide sequences according to SEQ ID NO: 37 and 38 or SEQ ID NO: 58 and 59.

8. Method according to claim 4 or 6, wherein the restriction enzyme is *Hpa II*.

9. Kit for the implementation of the method according to any one of claims 4 to 8, comprising DNA oligonucleotides, wherein one DNA oligonucleotide provides a sequence, which, upstream of the -786 position, corresponds to the sense strand of the eNOS gene, and another DNA oligonucleotide provides a sequence, which, downstream of the -786 position, corresponds to the antisense strand of the eNOS gene, optionally fluorescence-dye-modified DNA oligonucleotides, wherein a first DNA oligonucleotide provides a sequence, which includes the -786-position of the eNOS gene and corresponds to the sense or antisense strand and is complementary to the $^{-786}$C-variant of the eNOS gene promoter,

and a second DNA oligonucleotide provides a sequence, which corresponds to the sense or antisense strand, wherein the 3'-end of the second DNA oligonucleotide is disposed 1-5 nucleotides upstream of the 5'-end of the first DNA oligonucleotide, if the sequences of the DNA oligonucleotides correspond to the sense strand, and wherein the 5'-end of the second DNA oligonucleotide is disposed 1-5 nucleotides upstream of the 3'-end of the first DNA oligonucleotide, if the sequences of the DNA oligonucleotides correspond to the antisense strand;
reagents for the implementation of a PCR and either a restriction enzyme, which provides a recognition sequence, which is at least 4 nucleotides long and contains the sequence 5'-CCGG-3' but not the sequence 5'-CTGG-3', and
reagents for the implementation of a DNA splitting, or
reagents for the implementation of a fluorescence-resonance energy transfer (FRET)-supported DNA melting curve analysis.

10. DNA oligonucleotides with a nucleic acid sequence according to SEQ ID NO: 35 to 40 and 56 to 61.